CLAIMS

A method of treating undesired angiogenesis in a human or animal comprising the step of administering to the human or animal with the undesired/angiogenesis a composition comprising an effective amount of an angiogenesis-inhibiting compound selected from the group consisting of the following compounds:

A)

 R_2

 R_3'

 R_3

 R_5 R_8-R_9 R_3'

 R_4

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all P

In the above formulae A), B), and C), R₁, R₂, R₃ and R₄ can be selected from: -H; -OH; =O, straight chained and branched alkanes, alkenes, alkynes; cyclic alkanes, alkenes, and alkynes; combinations of cyclic and acyclic alkanes, alkenes, and alkynes; alcohol, aldehyde, ketone, carboxylic acid, ester, or ether moieties in combination with acyclic, cyclic, or combination

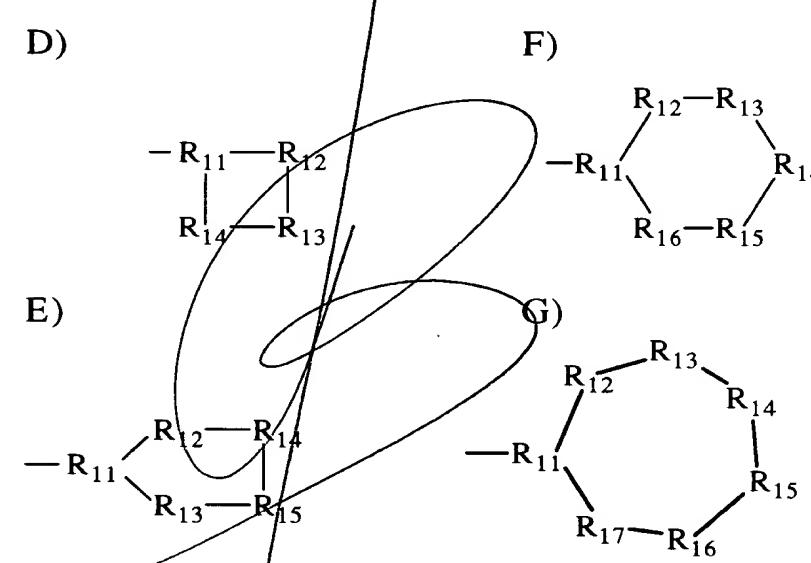
acyclic/cyclic moieties; aza; amino; XO_n or $-O-XO_n$, [where X=N and n=2; X=S and n=2 or 3; or X=P and n=1-3]; and halogens; R5, R6, R7, and R8 are each independently selected from:

 $Y = X - R_{10}; - N - R_{10};$

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or -O- where Y is optional and is the same as defined above for R1; and R10 is the same as defined above for R1, or (where Y is absent) R10 is =O; and R9 is a molety having formula D), E), F), G) or H):

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where each of R11 - R17 is (independently) the same as defined above for R5;

where R₁₈, R₁₉ and R₂₀ are, independently selected from

2. The method of claim 1, wherein the compound has the following formula:

$$\begin{array}{c|c}
R_{1} \\
R_{5} \\
R_{8} - R_{9} \\
R_{4} \\
\end{array}$$

and R5 and R6 are selected from the group consisting of

and in which R9 has formula F) or H), and R14 and R16 are selected from the group consisting of,

$$>$$
CH₂/ $>$ CHOH, or —C+; and R₁₅ and is -O-, or -N-,

where R₂/₁ is -H, -CH₃, or -OH,

3. The method of claim 1, wherein the compound is thalidomide.

4. The method of claim 1, wherein the compound is a thalidomide metabolite or hydrolysis product.

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5. The method of Claim 1, wherein the compound is selected from the group consisting of the following compounds:

6. The method of claim 1, wherein the compound is selected from the group consisting of N-phthaloyl-DL-glutamic acid (PGA) and N-phthaloyl-DL-glutamine anhydride.

7. The method of claim 1; wherein the compound is EM-12.

8. The method of claim 1, wherein the compound is selected from the group of compounds shown in Figures 1 through 3.

9. The method of Claim 1, wherein the composition further comprises an epoxide hydrolase inhibitor.

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10.	Th	e method of Cl	laim 1, v	vherein the undesired
angiogenesis	is	associated	with	retinal/choroida
neovascularization	on.	\		

11. The method of Claim 10, wherein the retinal/choroidal newvascularization is associated with diabetic retinopathy.

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12. The method/of Claim 10, wherein the retinal/chorpidal newvascularization is associated with macular degeneration.

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13. The method of Claim 1, wherein the undesired angiogenesis is associated with corneal neovascularization.

14. A method of treating undesired angiogenesis in an human or animal comprising the step of administering to the human or animal with the undesired angiogenesis a composition comprising an effective amount of an angiogenesis-inhibiting compound selected from the group consisting of the following compounds:

 R_{22} R_{23} R_{24}

where R₂₂ and R₂₃ are (independently), -H, -F, -Cl, -Br, -I, -CH₃, or -CH₂ -CH₃; and R₂₄ is -H, -OH, -CH₃, or -CH₂ -CH₃.

15. The method of Claim 14, wherein the composition further comprises an epoxide hydrolase inhibitor.

16. The method of claim 14, wherein the compound is selected from the group of compounds shown in Figure 4.

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17. A method of treating undesired angiogenesis in a human or animal comprising the step of administering to the human or animal with the undesired angiogenesis an effective amount of a compound selected from the group consisting of the following compounds:

where X is R6 as defined above, or X is

X is
$$R_{25}$$
 C — C — $(CH_2)_n$ — $C - R_{26}$

and R₂₅ and R₂₆ are, independently, -OH, -H, or -NH₂.

18. The method of claim 17, wherein the compound is selected from the group consisting of the compounds in Figure 5.

19. The method of Claim 17, wherein the composition further comprises an epoxide hydrolase inhibitor.

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20. A method of treating undesired angiogenesis in a human or animal comprising the steps of administering to the human or animal with the undesired angiogenesis a composition comprising an effective amount of an angiogenesis-inhibiting compound selected from the group consisting of the following compounds:

wherein compounds of structure (1), wherein R is selected from the group consisting of hydrogen, alkyl radicals of 1 to 6 carbon atoms, the phenyl radical, and the benzyl radical; and wherein R' is selected from the group consisting of the phthalimido radical and the succinimido radical and of structure (II), wherein X is CH₂ or C=O; R" is H, -CH₂CH₃, -C₆H₅, -CH₂CH=CH₂, or structure (a) and hydrolysis products of the sompounds wherein R" is H and the piperidino ring or both the piperidino and the imido ring are hydrolyzed.

- 21. A method of treating undesired angiogenesis in a human or animal comprising the step of administering to the human or animal with the undesired angiogenesis a composition comprising an effective amount of a teratogenic compound that is anti-angiogenic in a pharmaceutically acceptable carrier.
- 22. A method of treating undesired angiogenesis in a human or animal comprising the step of administering to the human or animal with the undesired angiogenesis a composition comprising an effective amount of an angiogenesis inhibitor containing an epoxide group and and effective amount of an epoxide hydrolase inhibitor.
- 23. A method of treating a human or animal that has toxic concentrations of TNF-α comprising the step of administering to the human or animal that has toxic concentrations of TNF-α an effective amount of an angiogenesis inhibitor containing an epoxyde group.
- 24. The method of Claim 24, wherein the composition further contains an effective amount of an epoxide hydrolase inhibitor.

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